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09/602,512	06/23/2000	Selim Shlomo Rakib	TER-012	9096

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EXAMINER

SHANG, ANNAN Q

ART UNIT	PAPER NUMBER
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2614

8

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/602,512

Applicant(s)

RAKIB ET AL.

Examiner

Annan Q Shang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5 and 6, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ovadia et al (6,400,720)** in view of **Appelman (6,112,250)**

As to claims 1 and 5, note the **Ovadia et al** reference figures 1 and 2, disclose method for transporting variable length and fixed length packets in a standard digital transmission frame and further disclose a head end apparatus for cable television operator, comprising:

the claimed "one or more inputs for receiving streams of MPEG data packets and/or Internet Protocol (IP) packets encoding a plurality of video programs..." is met by Digital Satellite Receiver (DSR) 21 and IP Data Receiver (IP-DR) or Modem inherent to Host Transcoder System (HTS) 23 or Headend 10, 14 and 16 (HE 10) (figs. 1, 2, col. 3, line 58-col. 4, line 18), note Headends 10, 14 and 16 includes DSR 21 and IP-DR or Modem and HTS 23, for receiving television data (MPEG-2) and IP data encoding a plurality of video programs/services provided by servers on the network coupled to one or more inputs;

the claimed "one or more transmitters, transceivers or modems, each having an output coupled to downstream transmission medium and an input for receiving a stream

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of packets..." is inherent to HE 10 (col. 4, lines 5-18), note that HE 10 includes HTS 23 and one or more transmitters, transceivers or modems, each having an output coupled to HFC network "downstream transmission medium" and input for receiving a stream of packets containing digital video/audio packets and IP datagrams "data encoding one or more programs and/or services and other data" to be used with the program/services;

the claimed "a pull multiplexer coupled to receive upstream program and/or service requests and receive said one or more streams of compressed data packets from said one or more inputs..." is met HTS 23 (col. 1, lines 18-29, col. 3, lines 41-52 and col. 4, lines 14-29), note that HTS 23 consists of multiplexing and de-multiplexing and communicates Video/Audio signals and/or IP data "output a stream of data packets containing data encoding one or more requested video programs and/or services" to Client Transcoder System (CTS) 29, and includes IP control data to control the various network devices such as subscriber terminal equipment, note that the IP control data includes IP datagrams that enables HTS 23 "recoding circuit and a programmed computer" to map one or more requested programs and/or services to program identifier codes, IP addresses or other identifying information that can be used by one or more culling switches to cull out data packets from V/A packets or signals from various satellite sources "streams of compressed data packets" received at said one or more inputs that contain data encoding the requested program(s) and/or service(s), note further that HTS 23 accepts baseband digital video/audio signals "MPEG packets" from DSR 21, IP data via line 27 and upstream program/services requests from CTS and Subscriber Terminal Equipment (STE) and transcodes the input signals to DS-3 frames,

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and in accordance with culling selection criteria and organizes the resulting culled packets in one or more output streams of packets, each output stream containing "IP datagrams" or "IP control data" (col. 4, lines 40-66) the data encoding programs and/or services requested by Client Transcoder System (CTS) or Subscriber Terminal Equipment (STE), note that the DS-3 is a full duplex IP data transport that supports both downstream and upstream data transmission (col. 1, lines 41-65).

Ovadia fails to explicitly teach where HTS 23 "recoding circuit" comprises information regarding the available bandwidth on the downstream channel and to decompress the packets and recompress the data to a more compressed state if necessary to meet available bandwidth in the downstream medium and managing the output streams for maximum efficiency in transmitting the requested programs/services.

However, note the **Appelman** reference figure 2, discloses a Network Server 20 that automatically decompresses and recompresses packets, anytime a request is made to meet available bandwidth for maximum efficiency in transmitting requested files or programs and also conserve network bandwidth to meet as many requests as possible from various clients (fig. 2, col. 2, lines 31-44, line 65-col. 3, line 37)

Therefore it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Appelman into the system of Ovadia to decompress and recompress video data to conserve network bandwidth each time a request is made and meet the various clients demands and offer better services to the client for the requested programs/service.

As to claim 6, Ovadia further discloses where the HTS 23 assembles data packets that comprises the output streams such that all the data packets that encode requested programs/services and associated to be viewed/used at a particular CTS 29 are transmitted to customer on a number of logical channels equal to or less than the number of tuners at the CTS 29 (col. 4, lines 20-29), note that CTS receives programs/services on a number of logical channels and transmits IP control data to control the various network devices and STE.

3. Claims 3, is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ovadia et al (6,400,720)** in view of **Appelman (6,112,250)** as applied to claim 1 above, and further in view of **Li et al (6,543,053)**

As to claim 3, Ovadia as modified by Appelman teach all the claimed limitations as previously discussed with respect to claim 1, but fail to explicitly teach culling switch circuitry to select data packets defining one or more output streams for transmission on one or more channels such that one or more subchannels carry data encoding popular programs/services that are to be transmitted downstream regardless of whether there are any current program/service requests for the popular programs/services and to output the data packets defining the one or more popular programs/services at the data output.

However, note the **Schneidewend et al** reference, teach system and method encodes data packets or programs in major and minor channels and transmits the data packets or programs in major and minor channel numbers or channels (12 NBC) and

subchannels (12-1 NBC SPORTS), FOOTBALL, NBC MOVIES, etc., for display on screen (fig. 12, col. 4, lines 12-30 and col. 11, lines 23-66).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Schneidewend into the system of Ovadia as modified by Appelman to utilize bandwidth efficiently by splitting 6 MHz bandwidth (allocated to television broadcast channels) into channels and subchannels, for transmission of programs and further to enable broadcasters to still maintain brand identity, e.g. Fox 5, Channel 13, etc.,

Ovadia as modified by Appelman and Schneidewend, fail to teach given priority to popular programs and selecting popular programs regardless of whether there are any request for the programs and organizing both requested programs into one or more streams.

However, note **Li et al** reference figure 2, teaches a VOD services that assigns different retrieval time for both regular and popular programs and organizes these programs for transmission to the subscribers, note col. 8, lines 20-24, line 49-56 and col. 13, line 34-col. 14, line 18.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Li into the system of Ovadia as modified by Appelman and Schneidewend, to provide higher priority to popular programs and offer better services to the users.

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4. Claims 4, is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ovadia et al (6,400,720)** in view of **Appelman (6,112,250)** as applied to claim 1 above, and further in view of **Weinstein et al (6,604,242)**.

As to claim 4, Ovadia as modified by Appelman, teach all the claimed limitation as previously discussed with respect to claim 1, but fail to explicitly teach a multiplexer for controlling upstream transmission by implementing a log-in procedure to authenticate users so as to make sure upstream requests come only from users who have valid subscriptions.

However, **Weinstein et al** teach a television broadcast and personalized/interactive information, and implements login procedure to authenticate individual recipients 110 before retrieving any preferences of web pages for the particular recipient 110 (figs. 1, 3 and col. 7, lines 2-31).

Therefore it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Weinstein into the system of Ovadia as modified by Appelman to provide a log-in process to authenticate user to ensure security on the network by communicating with appropriate user who requested for the programs/services.

5. Claims 7 and 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ovadia et al (6,400,720)** in view of **Appelman (6,112,250)** as applied to claim 1 above, and further in view of **Schneidewend et al (6,249,320)**.

As to claims 7 and 8, Ovadia as modified by Appelman, teach all the claimed limitation as previously discussed with respect to claim 1, including analyzing the

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number of requests for programs/services received from each subscriber and the number of tuners coupled to each CTS and STE, but fails to explicitly teach availability of subchannels on one or more logical channels and encoding the programs/services each particular customer requested on subchannels on a number of logical channels that does not exceed the number of tuners and transmitting programs/services in on the channels and subchannels accordingly.

However, note the **Schneidewend et al** reference, teach system and method encodes data packets or programs in major and minor channels and transmits the data packets or programs in major and minor channel numbers or channels (12 NBC) and subchannels (12-1 NBC SPORTS), FOOTBALL, NBC MOVIES, etc., for display on screen to enable a user to tune to the various programs on the subchannels or logical channel (fig. 12, col. 4, lines 12-30 and col. 11, lines 23-66).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Schneidewend into the system of Ovadia as modified by Appelman to utilize bandwidth efficiently by splitting 6 MHz bandwidth (allocated to television broadcast channels) into channels and subchannels, assign the various tuners in the customer premises to the channels and subchannels, transmit programs/services requested by a customer on a number of logical channels equal to the number of tuners, to enable the various tuners to tune to the various channels and subchannels to receive the programs/services, thereby conserving bandwidth using subchannels and furthermore to enable broadcasters to still maintain brand identity, e.g. Fox 5, Channel 13, etc.,

6. Claims 13-15, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ovadia et al (6,400,720)** in view of **Laubach et al (6,081,533)**, and further in view of **Schneidewend et al (6,249,320)**.

As to claim 13, note the **Ovadia et al** reference figures 1 and 2, disclose method for transporting variable length and fixed length packets in a standard digital transmission frame and further disclose a head end multiplexer system for a central office of a DSL system, comprising:

the claimed "one or more inputs for receiving streams of MPEG data packets and/or Internet Protocol (IP) packets encoding a plurality of video programs..." is met by Digital Satellite Receiver (DSR) 21 and IP Data Receiver (IP-DR) or Modem inherent to Host Transcoder System (HTS) 23 or Headend 10, 14 and 16 (HE 10) (figs. 1, 2, col. 3, line 58-col. 4, line 18), note Headends 10, 14 and 16 includes DSR 21 and IP-DR or Modem and HTS 23, for receiving television data (MPEG-2) and IP data encoding a plurality of video programs and and/or services provided by servers on the network coupled to one or more inputs;

the claimed "one or more culling switch means for culling out MPEG packets received at said video inputs, IP packets received at said IP inputs..." and the "control means are met by HTS 23 (col. 4, lines 14-29), note that HTS 23 accepts baseband digital video/audio signals "MPEG packets" from DSR 21, IP data via line 27 and upstream program/services requests from CTS and Subscriber Terminal Equipment (STE) and transcodes the input signals to DS-3 frames, and in accordance with culling selection criteria and organizes the resulting culled packets in one or more output

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streams of packets, each output stream containing "IP datagrams" or "IP control data" (col. 4, lines 40-66) the data encoding programs and/or services requested by Client Transcoder System (CTS) or Subscriber Terminal Equipment (STE), note that the DS-3 is a full duplex IP data transport that supports both downstream and upstream data transmission (col. 1, lines 41-65), note further that HTS 23 manages and controls transmission of programs or data to various network devices such as CTS and subscriber STE offers T3 synchronous integrated services digital network (ISDN) lines.

Ovadia fails to explicitly teach one or more wideband inputs for receiving telephony packets containing digital data from an interface to a wide band digital network such a T-carrier system or X.25 packet network, one or more POTS inputs for receiving plain old telephone service analog signals from a POTS switch in a public service telephone network and customer premises with DSL modems with input coupled to POTS inputs and upstream inputs of a computer, coupled to the Head end and generating management control messages for transmission to each customer premises indicating which logical channel(s) and subchannel(s) on the DSL line coupled to the customer premises on which the requested program(s)/service(s) will be found.

However note **Laubach et al** reference figures 1, 2 and 7, disclose method and apparatus for an application interface module (AIM) for managing information to/from a subscriber terminal and cable television headend unit comprising Voice Interface (Voi-Int) 714, which receives packets containing digital data from an interface of a wide band digital network, such as T-Carrier system or X.25 packet network (col. 4, lines

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9-48); note also that Voi-Int 714 are inputs for receiving plain old telephone analog signals from a POTS switch in a public service telephone network and one or more modems Et-Int(s) 710 and 711 via DSL line 1704 and 1706 (col. 16, line 65-col. 17, line 1+).

Therefore it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Laubach into the system of Ovadia to provide wideband inputs, POTS input and DSL Modems to further offer users with additional services such as telephone services and permits ordering of programs/services via a telephone network.

Ovadia as modified by Laubach fail to explicitly teach transmitting one or more logical channels each with a plurality of subchannels and sending control downstream messages to the customers indicating which logical channels and subchannels, they can find their requested video program(s)/service(s), where each cable modem modulates the different program(s)/service(s) in the subchannels encoded in the data packets of compressed data stream onto particular subchannels of particular logical channels designated in management and control messages received from the multiplexer.

However, note **Schneidewend et al** reference figures 11-13, teaches system and method encoding, transmitting and displaying major and minor channel numbers or channels (12 NBC) and subchannels (12-1 NBC SPORTS), on a user display device (fig. 12, col. 4, lines 12-30 and col. 11, lines 23-66), note that a FOOTBALL, NBC

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MOVIES, etc., are messages displayed, to indicate to the user where to retrieve information (fig. 12, col. 4, lines 12-30 and col. 11, lines 23-66).

Therefore it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Schneidewend into the system of Ovadia on order to provide information to a viewer to enable the viewer to tune to appropriate channel for the requested information or program(s).

Claim 14 is met as previously discussed with respect to claim 6,

Claim 15 is met as previously discussed with respect to claim 7 and 8.

7. Claims 9-11, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ovadia et al (6,400,720)** in view of **Schneidewend et al (6,249,320)** and **Appelman (6,112,250)**.), and further in view of **Laubach et al (6,081,533)**.

As to claims 9-10, note the **Ovadia et al** reference figures 1 and 2, disclose method for transporting variable length and fixed length packets in a standard digital transmission frame and further disclose a head end for cable television system, comprising:

the claimed "a head end cherry picker multiplexer having a plurality of inputs for coupling to data paths to receive input MPEG data streams from one or more video servers, Internet Protocol (IP) packets from a wide area network servers..." Host Transcoder System (HTS) 23 of Headend 10, 14 and 16 (HE 10) (figs. 1, 2, col. 3, line 58-col. 4, line 18), note Headends 10, 14 and 16 includes DSR 21 and IP-Data Transceiver (IP-DT) or Modem and HTS 23, where DSR 21 receives MPEG-2 packets containing Video/Audio (V/A) data from various satellite sources and IP data from one

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or more video servers over line 27 to other network devices "wide area network servers" for digital switches encoding a plurality of video programs/services provided by servers on the network coupled to one or more inputs and further discloses HTS 23 "culling means" (col. 3, lines 41-52 and col. 4, lines 14-29), a transcoder system which consists of multiplexing and de-multiplexing, for transcoding and multiplexing Video/Audio signals/IP data to Client Transcoder System (CTS) 29, and furthermore receives upstream requests for program(s)/service(s) from CTS 29 and other subscriber terminal equipment and maps the upstream requests to program identifier codes, IP addresses, IP datagrams or other identifying information that can be used cull out data packets from V/A packets or signals from various satellite sources to output the requested video-on-demand data (col. 1, lines 18-29), as an MPEG packet stream using one or more switches to generate one or more output streams;

the claimed "a bank of one or more cable modems, each cable modem coupled to output of said recoder to receive..." is inherent to HE 10 (col. 4, lines 5-18), note that HE 10 includes HTS 23 and receives bi-directional communication with CTS 29 via interfaces ADM 25(a-c) using HFC network "downstream transmission medium" and input, DSR 21 and Modem via line 27, for receiving a stream of packets containing digital video/audio packets and IP data "data encoding one or more programs and/or services and other data" to be used with the program and/or services;

Ovadia fails to explicitly teach transmitting one or more logical channels each with a plurality of subchannels and sending control downstream messages to the customers indicating which logical channels and subchannels, they can find their

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requested video program(s)/service(s), where each cable modem modulates the different program(s)/service(s) in the subchannels encoded in the data packets of compressed data stream onto particular subchannels of particular logical channels designated in management and control messages received from the multiplexer.

However, note **Schneidewend et al** reference figures 11-13, teaches system and method encoding, transmitting and displaying major and minor channel numbers or channels (12 NBC) and subchannels (12-1 NBC SPORTS), on a user display device (fig. 12, col. 4, lines 12-30 and col. 11, lines 23-66), note that a FOOTBALL, NBC MOVIES, etc., are messages displayed, to indicate to the user where to retrieve information (fig. 12, col. 4, lines 12-30 and col. 11, lines 23-66).

Therefore it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Schneidewend into the system of Ovadia on order to provide information to a viewer to enable the viewer to tune to appropriate channel for the requested information or program(s).

Ovadia as modified by Schneidewend, fail to explicitly teach decompressing video data in said packets and recompressing said video data into a recompressed data stream of compressed video data packets having a bandwidth which less than or equal to the available bandwidth of a subchannel on data path to be used to transmit the recompressed data stream, for outputting the recompressed data stream at the output.

However, **Appelman** teaches a recompression server that automatically decompresses selected pre-compressed data streams and recompresses the

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decompressed data to a greater degree than the original pre-compressed data to achieve a bandwidth which can be transmitted on the LAN (figs. 2, 3, col. 2, lines 40-65 and col. 3, lines 33-38), note further that the invention may be implement as computer program (col. 3, lines 40-45 and col. 4, lines 52-62) and used on a LAN or WAN (col. 5, lines 14-23).

Therefore it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Appelman into the system of Ovadia as modified by Schneidewend to decompress and recompress video data to desired available bandwidth on a subchannel to conserve network bandwidth each time a request is made.

Ovadia as modified by Schneidewend and Appelman, fail to explicitly teach packets from T-Carrier interface circuitry or telephone company.

However, note **Laubach et al** reference figures 1, 2 and 7, disclose method and apparatus for an application interface module (AIM) for managing information to/from a subscriber terminal and cable television headend unit comprising Voice Interface (Voi-Int) 714, which receives packets containing digital data from an interface of a wide band digital network, such as T-Carrier system or X.25 packet network (col. 4, lines 9-48); note also that Voi-Int 714 are inputs for receiving plain old telephone analog signals from a POTs switch in a public service telephone network and one or more DOCSIS modems Et-Int(s) 710 and 711 via DSL line 1704 and 1706 (col. 16, line 65-col. 17, line 1+).

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Therefore it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Laubach into the system of Ovadia to provide wideband inputs, POTS input and DSL Modems to further offer users with additional services such as telephone services and permits ordering of programs/services via a telephone network.

As to claim 11, Ovadia further discloses cable modems that are DOCSIS compatible (col. 1, lines 13-40), note that Ovadia discloses data over hybrid fiber coax (HFC) network with return path over the HFC.

Claim 12 is met as previously discussed with respect to claim 6, note that the claimed "a programmed microprocessor..." is met by HTS 23 (col. 4, lines 14-29).

Response to Arguments

8. Applicant's arguments with respect to claims 1 and 3-15 have been considered but are moot in view of the new ground(s) of rejection. With respect to Applicant's remarks regarding the interpretation of the claimed language "means for assembling output streams for maximum efficiency" under 35 U.S.C. 112, paragraph 6 to cover the circuitry and software processes described in the specification that determining how many requests each customer has made and how many tuners that customer has and grouping all the requested programs, if possible, on no more than the number of channels matching the number of tuners the customer has; it requires that one interprets means plus function language, such that, for the purpose of rejection the limitation in question is rejected by that as disclosed or its art equivalent, hence the

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Examiner needs only interpret the claims such that it is in the specification or its art equivalent. The amendment to all the independent claims necessitated the new ground(s) of rejections discussed above, as such, this Office Action is made FINAL.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Akins, III et al (6,560,340) disclose method and apparatus for geographically limiting service in a conditional access system.

Datari (6,418,169) discloses system for prioritizing bi-directional broadcast data.

Grimwood et al (6,559,703) disclose mixed DOCSIS 1.0 TDMA burst with SCDMA transmissions on the same frequency channel.

Gotwald (5,987,518) discloses method and apparatus for communicating Internet protocol data over a broadband MPEG channel.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q Shang** whose telephone number is **703-305-2156**. The examiner can normally be reached on **700am-500pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W Miller** can be reached on **703-305-4795**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC)** at **866-217-9197 (toll-free)**.



Annan Q. Shang.



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